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Dialog Information Services' DIALNET -2030:01-004-Enter Service: dialog DIALNET: call connected DIALOG INFORMATION SERVICES PLEASE LOGON: ENTER PASSWORD: Welcome to DIALOG Dialog level 23.02.5A Last logoff 20jun90 09:35:17 Logon file001 20jun90 13:08:11 File _ 1:ERIC _ 66-90/MAY. Set Items Description b medocome 20jun90 13:08:24 User208700 Session A39.1 \$0.12 0.004 Hrs File1 \$0.12 Estimated cost File1 \$0.04 Dialnet \$0.16 Estimated cost this search \$0.16 Estimated total session cost 0.004 Hrs. System: OS - DIALOG OneSearch File 5:BIOSIS PREVIEWS_69-90/MAY BA9001;RRM3901 (C.BIOSIS 1990) File 34:SCISEARCH 1990 WK 1-23 (COPR. ISI INC. 1990) * See also files 434 (1987-89), 433 (1980-86) & 432 (1974-79) * Use 'BEGIN SCISEARC' to search all of SciSearch File 434:SCISEARCH _ 1987-1989 (COPR. ISI INC. 1990) * See also file 34 (1990-), 433 (1980-86) & 432 (1974-79) SORTS ARE NOT WORKING *** File 433:SCISEARCH - 1980-1986 (COPR. ISI INC. 1988) * See also file 34 (1990-), 434 (1987-89) & 432 (1974-79) File 432:SCISEARCH - 1974-1979 (COPR. ISI INC. 1988) * See also file 34 (1990-), 434 (1987-89) & 433 (1980-86) File 48:SFORT DATABASE_1977 - JUN 90 (COPR. SIRC 1990)

File 72:EMBASE (EXCERPTA MEDICA)_82-90/ISS24

(COPR. ESP BV/EM 1990)

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    File 173:EMBASE (ExcerpTa Medica) 1974-79
             (Copr. ESP BV/EM 1984)
    File 74:INTERNATIONAL PHARMACEUTICAL ABS. - 70-90/JUNE
             (COPR. ASHP 1990)
    File 144:PASCAL_1983 - 1990 MAR
             (C. INIST/CNRS 1990)
    File 149: HEALTH PERIODICALS DATABASE_1976-90/WEEK 24
             (COPR. IAC 1990)
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   Format 3 is now .20 for types and .40 for prints *
           See ?RATES149 for more details
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    File 155:MEDLINE 66-90/AUG (9008W2)
    File 157:AIDSLINE - 1980-90/JULY
    File 159: Cancerlit - 1963-90/June
    File 160:SMOKING AND HEALTH - 70-89/Dec
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    The problems in file 160 have been corrected now.
              Thank you for your patience.
   File 218: Nursing & Allied Health (CINAHL)_83-90/May
             (c. CINAHL Corp. 1990)
   File 219:Clinical Abstracts - Jan 81-89/Aug
             (Corp. Reference & Index Svcs.Inc.)
    File 265: FEDERAL RESEARCH IN PROGRESS - MAY 1990
    File 295: WORLD TRANSLATIONS INDEX 1984 - MAY 1990
            (COPR. ITC 1990)
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s endothel?&ab and vascular/ab and growth(w)factor/ab and (brain or pi#olt?¢@)/a
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         101274 ENDOTHEL?/AB
         216915 VASCULAR/AB
         710953 GROWTH/AB
         488593 FACTOR/AB
          77075 GROWTH/AB(W)FACTOR/AB
         414912 BRAIN/AB
              O PIFOLLIC?/AB
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t s4/7/1-6
          (Item 1 from file: 5)
 4/7/1
              BIOSIS Number: 89036666
0020844397
  PITUITARY FOLLICULAR CELLS SECRETE BOTH VASCULAR ENDOTHELIAL GROWTH
FACTOR AND FOLLISTATIN
  GOSPODAROWICZ D; LAU K
  CANCER RES. INST., UNIV. CALIF. MED. CENT., SAN FRANCISCO, CALIF. 94143.
 BIOCHEM BIOPHYS RES COMMUN 165 (1). 1989. 292-298.
                                                        CODEN: BBRCA
 Language: ENGLISH
  Follistatin.
                    hormone
                              which
                                     acts to suppress the release of
follicle-stimulating hormone (FSH) by putuitary-derived gonadotrophs, has
previously been identified only in the liquor folliculi of ovarian
follicles. By microsequencing of fractions derived from conditioned medium,
we show here that bovine pituitary-derived folliculo stellate cells are
also capable of producing and secreting this hormone. These results suggest
that folliculo stellate cells may serve as a source of follistatin within
the pituitary itself and that the regulation of FSH release from the
pituitary could therefore involve a paracrine mechanism.
          (Item 2 from file: 5)
 4/7/2
0019592323
              BIOSIS Number: 88048355
 PITUITARY FOLLICULAR CELLS SECRETE A NOVEL HEPARIN-BINDING GROWTH FACTOR
SPECIFIC FOR VASCULAR ENDOTHELIAL CELLS
 FERRARA N: HENZEL W J
 DEP. OF PHARMACOLOGICAL SCI., GENENTECH INC., 460 FOINT SAN BRUNO BLVD.,
SOUTH SAN FRANCISCO, CALIF. 94080.
 BIOCHEM BIOPHYS RES COMMUN
                              161 (2). 1989.
                                              851-858.
                                                         CODEN: BBRCA
 Language: ENGLISH
   growth factor vascular endothelial cells was identified in the media
conditioned
                  иovine
                           pituitary follicular cells and purified to
             bу
                      combination of
                                        ammonium sulfate precipitation,
homogeneity
             bу
                  а
heparin-sepharose affinity chromatography and two reversed phase HPLC
       The growth factor was a cationic, heat stable and relatively acid
stable protein and had a molecular weight, as assessed by silver-stained
SDS-PAGE gel, of .apprx. 45,000 under nonreducing conditions and .apprx.
23,000 under reducing conditions. The purified growth factor had a maximal
mitogenic effect on adrenal cortex-derived capillary endothelial cells at
    concentration of 1-1.2 ng/ml (22-26 pM). Further characterization of
the
    bioactivity of the growth factor reveals that it exerts mitogenic
effects also on vascular endothelial cells isolated from several districts
but not on adrenal cortex cells, lens epithelial cells, corneal endothelial
cells, keratynocytes or BHK-21 fibroblasts, indicating that its target cell
specificity is unlike that of any previously characterized growth factor.
Microsequencing reveals a unique N-terminal amino acid sequence. On the
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factor vascular endothelial growth factor (VEGF).

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4/7/3 (Item 3 from file: 5)

0016053482 BIOSIS Number: 81022420

PURE BRAIN-DERIVED ACIDIC FIBROBLAST GROWTH FACTOR IS A POTENT ANGIOGENIC VASCULAR ENDOTHELIAL CELL MITOGEN WITH SEQUENCE HOMOLOGY TO INTERLEUKIN 1

THOMAS K A; RIOS-CANDELORE M; GIMENEZ-GALLEGO G; DISALVO J; BENNETT C; RODKEY J; FITZPATRICK S

DEP. BIOCHEM., MERCK INST. THERAPEUTIC RES., MERCK SHALL DOHME RES. LAB., RAHWAY, N.J. 07065.

PROC NATL ACAD SCI U S A 82 (19). 1985. 6409-6413. CODEN: PNASA Language: ENGLISH

Pure bovine brain-derived acidic fibroblast growth factor is a very potent mitogen for vascular endothelial cells in culture and, in the presence of heparin, induces blood vessel growth in vivo. Partial amino acid sequence determinations confirm that this mitogen is a unique protein having amino acid sequence homology with human interleukin 1.

4/7/4 (Item 4 from file: 5)

0015212030 BIOSIS Number: 79102026

EFFECTS OF AN EXTRACT OF HUMAN BRAIN CONTAINING GROWTH FACTOR ACTIVITY ON THE PROLIFERATION OF HUMAN VASCULAR ENDOTHELIAL CELLS IN PRIMARY CULTURE

KLEIN-SOYER C; STIERLE A; BOUDERBALA B; CAZENAVE J-P

CENT. TRANSFUSION SANGUINE, 10, RUE SPIELMAN, 67085 STRASBOURG CEDEX, FR. BIOL CELL 52 (1 PART A). 1984 (RECD. 1985). 9-20. CODEN: BCELD

Language: ENGLISH

Lesions of vascular human EC [endothelial cell] play an important role in the development of thrombi and atherosclerosis. The factors which control the repair of vascular lesions are not well known. In addition, they are difficult to study because vascular EC from large vessels are fastidious cells to grow in tissue culture. Some of the factors that may be important in human umbilical vein EC growth in primary culture were investigated. Because of reported species differences in EC culture, it was decided to culture human EC only in the presence of biological culture reagents of human origin. Human umbilical vein EC, at low seed density, was grown to confluency on a human FN matrix or on human ECM [extracellular matrix] providing the medium was supplemented with a high concentration (30%) of human sera. The optimal proliferation of EC (even when seeded at clonal density) is obtained if HBE [human brain extract] is added. HBE cannot completely replace serum, but EC proliferated to a similar extent whether they were grown on FN or on ECM in the presence of 30% human serum or 10% human serum plus HBE. Thus, HBE contains a growth factor activity for human EC which stimulates cell growth and DNA replication. Further work is needed to purify HBE and to compare it to other endothelial cell growth factors isolated from bovine brain and bovine eye.

4/7/5 (Item 5 from file: 5)

0015132718 BIOSIS Number: 28068549

STIMULATION OF CULTURED HUMAN VASCULAR ENDOTHELIAL CELL PROLIFERATION BY GROWTH FACTORS FROM HUMAN BRAIN HEPARIN AND THROMBIN

DANILOV S M; ALLIKMETS E Y; MARTYNOV A V

INST. EXP. CARDIOL., USSR CARDIOL. RES. CENT., MOSCOW, USSR.

24TH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR CELL BIOLOGY, KANSAS CITY, MO., USA, NOV. 12-16, 1984. J CELL BIOL 99 (4 PART 2). 1984. 274A. CODEN: JCLBA

Language: ENGLISH

4/7/6 (Item 6 from file: 5)

0014233521 BIOSIS Number: 77066505

BOVINE BRAIN AND PITUITIRY FIBROBLAST GROWTH FACTORS COMPARISON OF THEIR ABILITIES TO SUPPORT THE PROLIFERATION OF HUMAN AND BOVINE VASCULAR ENDOTHELIAL CELLS

GOSPODAROWICZ D; CHENG J; LIRETTE M

CANCER RES. INST., UNIV. CALIFORNIA MED. CENT, SAN FRANCISCO, CALIF.

94143.

OULD FIGURE TO THE TOTAL TOTAL

Language: ENGLISH The mitogenic effects of brain and pituitary fibroblast growth factors (FGF) on vascular endothelial cells derived from either human umbilical vein or bovine aortic arch were compared. Both brain and pituitary FGF are mitogenic for low density human umbilical endothelial (HUE) cell cultures fibronectin- or laminin-coated dishes either maintained on biomatrices produced by cultured cells such as bovine corneal endothelial cells or the [mouse] teratocarcinoma cell line PF-HR-9. Pituitary FGF triggered the proliferation of HUE cells at concentrations as low as 0.25 ng/ml, with a half-maximal response at 0.55 ng/ml and optimal effect at 2.5 to 5 ng/ml. It was 50,000-fold more potent than commercial preparations of endothelial cell growth factor and 40 times more potent than commercial preparations of pituitary FGF. Similar results were observed when the effect of pituitary PGF was tested on low density cultures of adult bovine aortic endothelial cells. When the activity of brain and pituitary FGF on low density HUE cell cultures was compared, both mitogens were active. To confirm the presence in brain extract of both acidic and neutral, as well as of basic mitogen, for HUE cells, brain tissues were extracted at acidic (4.5), neutral (7.2) and basic (8.5) pH. The 3 types of extracts were equally potent in supporting the proliferation of either HUE or adult bovine aortic endothelial cells. When the various extracts were absorbed at pH 6.0 on a carboxymethyl Sephadex C-50 column, the neutral and basic extracts had an activity after adsorption similar to that of unadsorbed extracts. In contrast, extracts prepared at pH 4.5 lost 90-95% of their activity which was recovered in the adsorbed fraction containing FGF. log poff

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Dialog Information Services' DIALNET -2030:01-020-Enter Service: dialog DIALNET: call connected DIALOG INFORMATION SERVICES PLEASE LOGON: ENTER PASSWORD: Welcome to DIALOG Dialog level 23.02.5A >>> Cost Estimate prior to Disconnect, information only >>> 20jun90 09:23:26 User208700 Session A38.3 >>> \$2.77 0.033 Hrs File5 >>> \$2.77 Estimated cost File5 >>> \$0.33 Dialnet >>> \$3.10 Estimated cost this search >>> \$3.29 Estimated total session cost 0.050 Hrs. >>> logoff 20jun90 08:57:07 Last Reconnected in file 5 20jun90 09:26:55 File 5:BIOSIS PREVIEWS_69-90/MAY BA9001; RRM3901 (C.BIOSIS 1990) Set Items Description s an=85055227 53 1 AN=85055227 ts aB≠7/1 3/7/1 0018109758 BIOSIS Number: 85055227 VASCULAR ENDOTHELIAL CELL GROWTH FACTOR IN WOUND HEALING THE SECOND REPORT THE SIGNIFICANCE OF EXTRACELLULAR MATRIX COMPOSED BY ENDOTHELIAL CELLS SATO T; ARAI K; AIDA T; ASANO G DEP. DERMATOL., NATL. DEFENSE MED. COLL., TOKOROZAWA, SAITAMA 359, JPN. J NATL DEF MED COLL 12 (2). 1987. 65-72. CODEN: BIDZD Language: JAPANESE Morphological studies on the proliferative differentiation of vascular endothelial cells were performed on purpose to elucidate the mechanism of endothelial growth during the wound healing process. As previously reported, proliferation of the vascular endothelial cells incubated in the medium conditioned with fibroblasts, particularly with keloid-derived myofibroblasts, was shown to be substantially promoted. In addition occurrence of cell projections and junctions, formation of vacuales and the basement membrane and increased synthesis of GAG and fibronectin were observed suggesting that the cells differentiated into a typical endothelium. Taking into account these findings, the basement membrane and its main component-GAG and fibronectin together with the cell growth factor

originated from the platelets and macrophages appear to play an important role in the vascular endothelial cell growth. With regard to enhancement of vascular endothelial proliferation it is of interest of note roles of the

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0018035912 BIOSIS Number: 85012770

HUMAN VASCULAR SMOOTH MUSCLE CELLS BOTH EXPRESS AND RESPOND TO HEPARIN-BINDING GROWTH FACTOR I ENDOTHELIAL CELL GROWTH FACTOR WINKLES J A; FRIESEL R; BURGESS W H; HOWK R; MEHLMAN T; WEINSTEIN R; MACIAG T

LAB. MOL. BIOL., JEROME H. HOLLAND BIOMED. RES. LAB., AM. RED CROSS, 15601 CRABBS BRANCH WAY, ROCKVILLE, MD. 20855, USA.

PROC NATL ACAD SCI U S A 84 (20). 1987. 7124-7128. CODEN: FNASA Language: ENGLISH

The control of vascular endothelial and smooth muscle cell proliferation is important in such processes as tumor angiogenesis, wound healing, and the pathogenesis of atherosclerosis. Class I heparin-binding growth factor is a potent mitogen and chemoattractant for human endothelial cells in vitro and will induce angiogenesis in vivo. RNA gel blot hybridization experiments demonstrate that cultured human vascular smooth muscle cells, but not human umbilical vein endothelial cells, express HBGF-I mRNA. Smooth muscle cells also synthesize an HBGF-I-like polypeptide since (i) extract prepared from smooth muscle cells will compete with 125I-labeled HBGF-I for binding to the HBGF-I cell surface receptor, and (ii) the competing ligand is eluted from heparin-Sepharose affinity resin a NaCl concentration similar to that required by purified bovine brain HBGF-I and stimulates endothelial cell proliferation in vitro. Furthermore, like endothelial cells, smooth muscle cells possess cell-surface-associated HBGF-I receptors and respond to HBGF-I as a mitogen. These results indicate the potential for an additional autocrine component of vascular smooth muscle cell growth control and establish a vessel wall source of HBGF-I for endothelial cell division in vivo.

s an=84020672

S6 1 AN=84020672

t s6/7/1

6/7/1

0017543612 BIOSIS Number: 84020672

EVIDENCE OF THE PRESENCE OF A SPECIFIC VASCULAR ENDOTHELIAL GROWTH FACTOR IN FETAL BOVINE RETINA

CHEN C-H; CHEN S C

WOODS 363, JOHNS HOPKINS UNIV., 600 N. WOLFE ST., BALTIMORE, MD 21205, USA.

EXP CELL RES 169 (2). 1987. 287-295. CODEN: ECREA

Language: EMILISH

The presence of a vascular endothelial cell growth factor (VEGF) in the retina was reported in a previous study. The present experiments show that VEGF exhibits a pronounced synergism with the serum-derived factor and the vascular endothelium (VE) effectors in stimulating the proliferation of vascular VE cells. VEGF shows a chromatographic multiplicity with the 25,000-D component as the smallest subunit. Mg2+ is the specific divalent retains the VEGF molecule in the aggregated form and enhances the activity, both total and specific. In addition, VEGF is highly specific endothelial cells and is distinctly different from FGF, EGF, and insulin in terms of molecular weight (MW) and cell specificity. Under our assay conditions, VEGF has no stimulatory effect on other cell lines examined, including lens epithelial cells, corneal epithelial cells, keratocytes, Walker 256 carcinoma, and fibroblasts. These findings corneal indicate that VEGF possesses characteristic properties not reported for other growth factors, and that VEGF is distinctly different from the growth isolated from the retina in other laboratories. The present study suggests that VEGF in the retina represents a new type of growth factor. The need to employ a highly defined assay condition could have eluded the

s an=81079821 S7 1 AN=810 Best Available Copy

t s7/7/1

7/7/1

0016169405 BIDSIS Number: 81079821

A MACROPHAGE FACTOR THAT STIMULATES THE PROLITERATION OF VASCULAR ENDOTHELIAL CELLS

OKABE T; TAKAKU F

THE THIRD DEP. OF INTERNAL MED., FAC. OF MED., UNIV. OF TOKYO, HONGO, TOKYO 113, JAPAN.

BIOCHEM BIOPHYS RES COMMUN 134 (1). 1986. 344-350. CODEN: BBRCA

Language: ENGLISH

Sarcoid macrophage-epithelioid cells have been shown to release a growth factor that stimulates the proliferation of vascular endothelial cells in vitro. In the presence of this factor, cultured endothelial cells can proliferate in a serum-free medium. Gel-chromatography on Sephadex G-75 revealed a single peak of activity on endothelial cells. The molecular weight was estimated at 7,000-10,000. The activity was heat-labile and trypsin-sensitive, and did not adhere to heparin-Sepharose. s an=81001510

S8 1 AN=81001510

t s8/7/1

8/7/1

0016012052 BIOSIS Number: 81001510

A PLATELET FACTOR STIMULATING THE PROLIFERATION OF VASCULAR ENDOTHELIAL CELLS PARTIAL PURIFICATION AND CHARACTERIZATION

MIYAZONO K; OKABE T; ISHIBASHI S; URABE A; TAKAKU F

THIRD DEP. INTERN. MED., FAC. MED., UNIV. TOKYO, HONGO, BUNKYO-KU, TOKYO 113, JPN.

EXP CELL RES 159 (2). 1985. 487-494. CODEN: ECREA

Language: ENGLISH

Platelets have been shown to contain a novel growth factor that stimulates the proliferation of vascular endothelial cells in vitro. The factor potently stimulated both DNA synthesis and proliferation rate in serum-deprived endothelial cells. Gel exclusion chromatography showed at least two peaks of activity on endothelial cells, the major peak being at an apparent molecular weight of 20,000. isoelectric focusing revelaed that the pI of the factor was 4.0-4.8. It was absorbed to a column of DEAE ion exchange chromatography and eluted with a salt gradient. The factor was heat-labile and trypsin-sensitive. The activity was not destroyed by a reducing agent including dithiothreitol. This factor stimulated the proliferation of vascular endothelial cells but was not found to be inactive against normal rat kidney fibroblasts.

s an=79102026

S9 1 AN=79102026

t s9/7/1

9/7/1

0015212030 BIOSIS Number: 79102026

EFFECTS OF AN EXTRACT OF HUMAN BRAIN CONTAINING GROWTH FACTOR ACTIVITY ON THE PROLIFERATION OF HUMAN VASCULAR ENDOTHELIAL CELLS IN PRIMARY CULTURE

KLEIN-SOYER C; STIERLE A; BOUDERBALA B; CAZENAVE J-P

CENT. TRANSFUSION SANGUINE, 10, RUE SPIELMAN, 67085 STRASBOURG CEDEX, FR. BIOL CELL 52 (1 PART A). 1984 (RECD. 1985). 9-20. CODEN: BCELD Language: ENGLISH

Lesions of vascular human EC [endothelial cell] play an important role in the development of thrombi and atherosclerosis. The factors which control the repair of vascular lesions are not well known. In addition, they are difficult to study because vascular EC from large vessels are fastidious cells to grow in tissue culture. Some of the factors that may be important in human umbilical vein EC growth in primary culture were investigated. Because of reported species differences in EC culture, it was decided to culture human EC only in the presence of biological culture reagents of

confluency on a human FN matrix or on human ECM [extracellular matrix] providing the medium was supplemented with a high concentration (30%) of human sera. The optimal proliferation of EC (even when seeded at clonal density) is obtained if HBE [human brain extract] is added. HBE cannot completely replace serum, but EC proliferated to a similar extent whether they were grown on FN or on ECM in the presence of 30% human serum or 10% human serum plus HBE. Thus, HBE contains a growth factor activity for human EC which stimulates cell growth and DNA replication. Further work is needed to purify HBE and to compare it to other endothelial cell growth factors isolated from bovine brain and bovine eye.

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1 AN=77066505

t s10/7/1

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0014233521 BIOSIS Number: 77066505

BOVINE BRAIN AND PITUITARY FIBROBLAST GROWTH FACTORS COMPARISON OF THEIR ABILITIES TO SUPPORT THE PROLIFERATION OF HUMAN AND BOVINE VASCULAR ENDOTHELIAL CELLS

GOSPODAROWICZ D; CHENG J; LIRETTE !!

CANCER RES. INST., UNIV. CALIFORNIA MED. CENT, SAN FRANCISCO, CALIF. 94143.

J CELL BIOL 97 (6). 1983. 1677-1685. CODEN: JCLBA

Language: ENGLISH

The mitogenic effects of brain and pituitary fibroblast growth factors (FGF) on vascular endothelial cells derived from either human umbilical vein or bovine aortic arch were compared. Both brain and pituitary FGF are mitogenic for low density human umbilical endothelial (HUE) cell cultures either fibronectin- or laminin-coated dishes or on maintained on biomatrices produced by cultured cells such as bovine corneal endothelial cells or the [mouse] teratocarcinoma cell line PF-HR-9. Pituitary FGF triggered the proliferation of HUE cells at concentrations as low as 0.25 $\,$ ng/ml, with a half-maximal response at 0.55 ng/ml and optimal effect at 2.5 to 5 ng/ml. It was 50,000-fold more potent than commercial preparations of endothelial cell growth factor and 40 times more potent than commercial preparations of pituitary FGF. Similar results were observed when the effect of pituitary PGF was tested on low density cultures of adult bovine aortic endothelial cells. When the activity of brain and pituitary FGF on low density HUE cell cultures was compared, both mitogens were active. To confirm the presence in brain extract of both acidic and neutral, as well as of basic mitogen, for HUE cells, brain tissues were extracted at acidic (4.5), neutral (7.2) and basic (8.5) pH. The 3 types of extracts were equally potent in supporting the proliferation of $\epsilon 10 \mathrm{Mer}$ HUE or adult bovine aortic endothelial cells. When the various extracts were absorbed at pH 6.0 on a carboxymethyl Sephadex C-50 column, the neutral and basic extracts had an activity after adsorption similar to that of unadsorbed extracts. In contrast, extracts prepared at pH 4.5 lost 90-95% of their activity which was recovered in the adsorbed fraction containing FGF. s an=70028591

S11 1 AN=70028591

t s11/7/1

11/7/1

0010236095 BIOSIS Number: 70028591

STIMULATION OF HUMAN VASCULAR ENDOTHELIAL CELL GROWTH BY A PLATELET DERIVED GROWTH FACTOR AND THROMBIN

ZETTER B R; ANTONIADES H N

DEP. SURG., CHILD. HOSP. MED. CENT., BOSTON, MASS. 02115, USA.

J SUPRAMOL STRUCT 11 (3). 1979 (RECD. 1980). 361-370. CODEN: JSPMA Language: ENGLISH

Repair of a vascular wound is mediated by migration and subsequent replication of the endothelial cells that form the inner lining of blood vessels. The growth response of human umbilical vein endothelial cells (HuE) to 2 polypeptides transiently produced in high concentrations at the site of a wound was measured; the platelet-derived growth factor (PDGF) and

mm diameter) in the center of a 16 mm tissue culture well in medium containing 20% human serum derived from platelet-poor plasma (PDS), no increase in cell number or colony size was observed. When the addition of 0.5 ng/ml partially purified PDGF, colony size increases and the number of cells after 8 days is 4.8 .times. 104. When human thrombin (1 .mu.g/ml) is added along with the PDGF, the cell number rises to 9.2 .times. 104. Thrombin alone stimulates no increase in cell number. Although partially purified PDGF stimulates endothelial cells maintained in PDS as well as those maintained in whole blood serum (WBS), pure PDGF is active only when assayed in medium that contains WBS and is supplemented with thrombin. These results suggest the existence of a 2nd class of platelet-derived factors that enable HuE cells to respond to the mitogenic activity of the purified platelet mitogen and thrombin.

s an=66000728

S12 1 AN=66000728

t s12/7/1

12/7/1

0008188231 BIOSIS Number: 66000728

CONTROL OF PROLIFERATION OF BOVINE VASCULAR ENDOTHELIAL CELLS

GOSPODAROWICZ D; MORAN J S; BRAUN D L

SALK INST. BIOL. STUD., P.O. BOX 1809, SAN DIEGO, CALIF. 92112, USA.

J CELL PHYSIOL 91 (3). 1977 377-386. CODEN: JCLLA

Language: ENGLISH

The effects of fibroblast growth factor (FGF) [bovine pituitary and brain] and epidermal growth factor (EGF) on the proliferation of bovine vascular endothelial cells was examined [in relation to the development of vascular disease after endothelial cell injury]. FGF induces the initiation of DNA synthesis and cell proliferation in cloned endothelial cells of at 50 ng/ml. EGF had no effect over the same range of concentrations. The mitogenic effect of FGF is blocked by a crude extract of cartilage. Platelet extract is also mitogenic for vascular endothelial cells although to a lesser extent than the purified FGF. Both EGF and FGF are mitogenic for vascular smooth muscle cells although EGF is less mitogenic than FGF at 100 ng/ml. The mitogenic effect of EGF and FGF on vascular smooth muscle is not blocked by the addition of a crude extract of cartilage, thus demonstrating the specificity of the chalone like effect of cartilage crude extract for endothelial cells.

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20jun90 09:35:16 User208700 Session A38.4 \$12.60 0.150 Hrs File5

\$4.77 9 Type(s) in Format 4

\$4.77 9 Types

\$17.37 Estimated cost File5

\$1.50 Dialnet

\$18.87 Estimated cost this search

\$18.87 Estimated total session cost 0.150 Hrs.

Logoff: level 23.02.5 A 09:35:17

DIALNET: call cleared by request

Enter Service:

BitCom V2.6 DIAL ID=DIALOG DESC=DIALOG -PTO 06/20/90 09:39 am ATDT9-359-2500 CONNECT

Dialog Information Services' DIALNET -2030:01-006-Enter Service: dialog

DIALNET: call connected

DIALOG INFORMATION SERVICES PLEASE LOGON: 図開始開始開始 ENTER PASSWORD: 報報開始開始

Welcome to DIALOG Dialog level 23.02.5A

Last logoff 19jun90 15:07:53 Logon file001 20jun90 08:40:08 COPR. (c) DIALOG INFORMATION SERVICES, INC. ALL RIGHTS RESERVED. NO CLAIM TO ORIG. U.S. GOVT. WORKS.

Announcements:

New: HOUSTON POST (PAPERS) (File 639)

New: EVENTLINE (File 165)

DIALOG system now available three more hours per week. See HELP SCHEDULE for more information.

>>> Enter BEGIN HOMEBASE for Dialog Announcements <<<
>>> of new databases, price changes, etc. <<<
>>> Announcements last updated 19jun90 <<<</pre>

File 1:ERIC _ 66-90/MAY.
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b medicine

20jun90 08:40:24 User208700 Session A37.1 \$0.15 0.005 Hrs File1

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File 5:BIOSIS FREVIEWS_69-90/MAY BA9001;RRM3901 (C.BIOSIS 1990)

File 34:SCISEARCH _ 1990 WK 1-22 (COPR. ISI INC. 1990)

- * See also files 434 (1987-89), 433 (1980-86) & 432 (1974-79)
- * Use 'BEGIN SCISEARC' to search all of SciSearch
- * File 34 (1989) has been rolled off into file 434. See ?news34

File 434:SCISEARCH _ 1987-1989

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* See also file 34 (1990- ), 433 (1980-86) & 432 (1974-79)
    SORTS ARE NOT WORKING ***
    File 433:SCISEARCH - 1980-1986
            (COPR. ISI INC. 1988)
* See also file 34 (1990- ), 434 (1987-89) & 432 (1974-79)
    File 432:SCISEARCH - 1974-1979
            (COPR. ISI INC. 1988)
% Jud also file 34 (1990- ), 434 (1987-89) & 433 (1980-86)
        48:SPORT DATABASE_1977 - JUN 90
    File
            (COPR. SIRC 1990)
    File
        72:EMBASE (EXCERPTA MEDICA)_82-90/ISS24
            (COPR. ESP BV/EM 1990)
   File 172:EMBASE (ExcerpTa Medica) 1980-81
            (Copr. ESP BV/EM 1984)
   File 173:EMBASE (ExcerpTa Medica) 1974-79
            (Copr. ESP BV/EM 1984)
   File
         74: INTERNATIONAL PHARMACEUTICAL ABS. - 70-90/JUNE
            (COPR. ASHP 1990)
   File 144: PASCAL 1983 - 1990 MAR
            (C. INIST/CNRS 1990)
   File 149: HEALTH PERIODICALS DATABASE_1976-90/WEEK 24
            (COPR. IAC 1990)
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   Format 3 is now .20 for types and .40 for prints *
           See ?RATES149 for more details
File 155: MEDLINE 66-90/AUG (9008W2)
   File 157:AIDSLINE - 1980-90/JULY
   File 159: Cancerlit - 1963-90/June
   File 160:SMOKING AND HEALTH - 70-89/Dec
                   ***
   The problems in file 160 have been corrected now.
              Thank you for your patience.
                    ****
   File 218: Nursing & Allied Health (CINAHL)_83-90/May
            (c. CINAHL Corp. 1990)
**
   File 219:Clinical Abstracts - Jan 81-89/Aug
            (Corp. Reference & Index Svcs.Inc.)
   File 265: FEDERAL RESEARCH IN PROGRESS - MAY 1990
   File 295: WORLD TRANSLATIONS INDEX 1984 - MAY 1990
            (COPR. ITC 1990)
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Items Description

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260315 VASCUL?/AB
          101231 ENDOTHEL?/AB
          28166 VASCUL?/AB AND ENDOTHEL?/AB
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           28166 S11
          710456 GROWTH/AB
          488266 FACTOR/AB
           76978 GROWTH/AB(W)FACTOR/AB
           1873 S1 AND GROWTH(W)FACTOR/AB
      S2
s s2 not py=1990
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          527396 PY=1990
            1730 S2 NOT PY=1990
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            1663 S3 AND VASCULAR
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           77110 ENDOTHELIAL/AB
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          216805 VASCULAR/AB
            1547 S5 AND VASCULAR/AB
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           57233 ENDOTHEL?/TI
             291 S6 AND VASCULAR/TI AND ENDCTHEE?/TI
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         122 RD S8 (unique items)
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BIOSIS Number: 87034425
0019080289
  THE EFFECT OF LYMPHOKINES ON GROWTH AND PHENOTYPE OF HUMAN VASCULAR
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               BIOSIS Number: 86045532
  EPIDERMAL GROWTH FACTOR STIMULATES PROSTACYCLIN PRODUCTION BY CULTURED
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  WASCULAR ENDOTHELIAL CELL GROWTH FACTOR IN WOUND HEALING THE SECOND
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00/18035912 BIOSIS Number: 85012770

✓ HUMAN VASCULAR SMOOTH MUSCLE CELLS BOTH EXPRESS AND RESPOND TO

HEPARIN-BINDING GROWTH FACTOR I ENDOTHELIAL CELL GROWTH FACTOR
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            BIOSIS Number: 79102026
igcup  EFFECTS OF AN EXTRACT OF HUMAN BRAIN CONTAINING GROWTH FACTOR ACTIVITY ON
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  RAPID PURIFICATION AND ACTIVITY OF APO LIPO PROTEIN C-1 ON THE
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BIOSIS Number: 78002265

HUMAN AND BOVINE VASCULAR ENDOTHELIAL CELLS COMPARATIVE EFFECT ON CELL GROWTH AND LONGEVITY OF AN EYE DERIVED GROWTH FACTOR AND OF EXTRACELLULAR

0014265785

MATRIX

(Item 14 from file: 5) \$/6/14 014233521 BIOSIS Number: 77066505 BOVINE BRAIN AND PITUITARY FIBROBLAST GROWTH FACTORS COMPARISON OF THEIR ABILITIES TO SUPPORT THE PROLIFERATION OF HUMAN AND BOVINE VASCULAR ENDOTHELIAL CELLS 9/6/15 (Item 15 from file: 5) 0014208561 BIOSIS Number: 77041545 PHOSPHATIDYL CHOLINE AND THE GROWTH IN SERUM-FREE MEDIUM OF VASCULAR

ENDOTHELIAL AND SMOOTH MUSCLE CELLS AND CORNEAL ENDOTHELIAL CELLS

9/6/16 (Item 16 from file: 5) 0013305383 BIOSIS Number: 76062875

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9/6/17 (Item 17 from file: 5) 0013203412 BIOSIS Number: 75053412

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9/6/20 (Item 20 from file: 5) 0012235887 BIOSIS Number: 74008367

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9/6/21 (Item 21 from file: 5) 0011138252 BIOSIS Number: 71008244

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\$/6/23 (Item 23 from file: 5) 0/010236095 BIOSIS Number: 70028591 $oldsymbol{ee}$ STIMULATION OF HUMAN VASCULAR ENDOTHELIAL CELL GROWTH BY A PLATELET DERIVED GROWTH FACTOR AND THROMBIN

9/6/24 (Item 24 from file: 5) 0010229186 BIOSIS Number: 70021682

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(Item 26 from file: 5) 9/6/26

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ATALL AN ELLE ELDER ANAL

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Number of References: 24

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0898667 Number of References: 39
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9/6/40 (Item 11 from file: 434)
08736857 Numbe: of References: 49
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9/6/41 (Item 12 from file: 434)
08543094 Number of References: 53
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9/6/42 (Item 13 from file: 434) 08509305 Number of References: 17

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9/6/43 (Item 14 from file: 434) 08507009 Number of References: 32

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9/6/44 (Item 15 from file: 434) 08409446 Number of References: 42 REGULATION OF VASCULAR SMOOTH-MUSCLE CELL-GROWTH BY

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9/6/45 (Item 16 from file: 434) 08373254 Number of References: 19

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9/6/46 (Item 17 from file: 434) 08369742 Number of References: 46

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9/6/47 (Item 18 from file: 434) 08353333 Number of References: 16

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9/6/48 (Item 19 from file: 434) 08212112 Number of References: 65

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9/6/49 (Item 20 from file: 434) 08119371 Number of References: 31

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9/6/50 (Item 21 from file: 434) 08067834 Number of References: 49

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9/6/51 (Item 22 from file: 434) 08058895 Number of References: 32 NEUTROPHIL-MEDIATED PROTECTION OF C

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  INVITED ENDOTHELIALIZATION OF SMALL-CALIBER VASCULAR GRAFTS
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9/6/54 (Item 25 from file: 434) 07990381 Number of References: 32 VASCULAR LIPOXYGENASE ACTIVITY - SYNTHESIS OF 15-HYDROXYEICOSATETRAENOIC

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(Item 26 from file: 434) 07849537 Number of References: 32 EFFECT OF HYPERCHOLESTEROLEMIA ON VASCULAR REACTIVITY IN THE RABBIT .2. INFLUENCE OF TREATMENT WITH DIPYRIDAMOLE ON ENDOTHELIUM-DEPENDENT AND ENDOTHELIUM-INDEPENDENT RESPONSES IN ISOLATED AORTAS OF CONTROL AND HYPERCHOLESTEROLEMIC RABBITS

(Item 1 from file: 433) 9/6/56 07710710 Number of References: 34 DIFFERENT EFFECTS OF ASPIRIN, DIPYRIDAMOLE AND UD-CG 115 ON PLATELET ACTIVATION IN A MODEL OF VASCULAR INJURY - STUDIES WITH EXTRACELLULAR-MATRIX COVERED WITH ENDOTHELIAL-CELLS

(Item 2 from file: 433) 9/6/57 07702568 Number of References: 61 METHODS IN LABORATORY INVESTIGATION - INBRED GUINEA-PIG AORTIC ENDOTHELIAL-CELL CLONES - MODEL FOR STUDYING THE VASCULAR ENDOTHELIUM UNDER TOTALLY ISOLOGOUS CONDITIONS

9/6/58 (Item 3 from file: 433) Number of References: 39 07685330 PLASMALEMMAL PROTEINS OF CULTURED VASCULAR ENDOTHELIAL-CELLS EXHIBIT APICAL BASAL POLARITY - ANALYSIS BY SURFACE-SELECTIVE IODINATION

9/6/59 (Item 4 from file: 433) Number of References: 47 07678612

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2 MONOKINGS, INTERLEUKIN-1 AND TUMOR NECROSIS FACTOR. RENDER CULTURED VASCULAR ENDOTHELIAL-CELLS SUSCEPTIBLE TO LYSIS BY ANTIBODIES CIRCULATING DURING KAWASAKI SYNDROME

9/6/60 (Item 5 from file: 433) Number of References: 36 07668279

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9/6/61 (Item 6 from file: 433) 07663236 Number of References: 2 CULTURED HUMAN VASCULAR ENDOTHELIAL-CELLS EXPRESS THE A-CHAIN OF PDGF

9/6/62 (Item 7 from file: 433) 07649430 Number of References: 31

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07619687
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07389665
 PLATELET ACTIVATING FACTOR ALTERS CALCIUM HOMEOSTASIS IN CULTURED
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             Number of References: 26
07370619
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MORPHOLOGIC MODULATION, GROWTH-INHIBITION, AND CYTO-TOXICITY

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Number of References: 47
07357255
 RECOMBINANT TUMOR NECROSIS FACTOR INDUCES PROCOAGULANT ACTIVITY IN
CULTURED HUMAN VASCULAR ENDOTHELIUM - CHARACTERIZATION AND COMPARISON WITH
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9/6/82 (Item 27 from file: 433) 07210313 Number of References: 96 ENDOTHELIAL-CELL INFLUENCES ON VASCULAR SMOOTH-MUSCLE PHENOTYPE

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FIBROBLASTS AND VASCULAR ENDOTHELIAL-CELLS

THE EFFECT OF FLOW ON VASCULAR ENDOTHELIAL-CELLS GROWN IN TISSUE-CULTURE ON POLYTETRAFLUOROETHYLENE GRAFTS

(Item 30 from file: 433) 9/6/85 Number of References: 30

ELONGATION OF ARACHIDONIC AND EICOSAPENTAENOIC ACIDS LIMITS THEIR AVAILABILITY FOR THROMBIN-STIMULATED RELEASE FROM THE GLYCEROLIPIDS OF VASCULAR ENDOTHELIAL-CELLS

(Item 31 from file: 433) 9/6/86 07108092 Number of References: 35

2 DISTINCT MONOKINES, INTERLEUKIN-1 AND TUMOR NECROSIS FACTOR, EACH INDEPENDENTLY INDUCE BIOSYNTHESIS AND TRANSIENT EXPRESSION OF THE SAME ANTIGEN ON THE SURFACE OF CULTURED HUMAN VASCULAR ENDOTHELIAL-CELLS

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INHIBITION OF VASCULAR ENDOTHELIAL-CELL GROWTH AND TRYPSIN ACTIVITY BY VITREOUS

(Item 33 from file: 433) 9/6/88 07058703 Number of References: 50

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SUBENDOTHELIAL PROTEINS AND PLATELET-ADHESION - VONWILLEBRAND-FACTOR AND FIBRONECTIN, NOT THROMBOSPONDIN, ARE INVOLVED IN PLATELET-ADHESION TO EXTRACELLULAR-MATRIX OF HUMAN VASCULAR ENDOTHELIAL-CELLS

07058252 Number of References: 26

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AND SURFACE EXPRESSION OF HLA-A, B ANTIGENS IN VASCULAR ENDOTHELIAL-CELLS
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9/6/90 (Item 35 from file: 433)
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976790 (Item 35 from file: 433) 07056478 Number of References: 33 - INCREASED VASCULAR CONTRACTION AND SENSITIVITY TO NOREPIN

INCREASED VASCULAR CONTRACTION AND SENSITIVITY TO NOREPINEPHRINE AFTER ENDOTHELIAL DENUDATION IS INHIBITED BY PRAZOSIN

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High density lipoproteins and the growth of vascular endothelial cells in

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(Item 1 fr Best Ayailable Gopy
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vascular and corneal endothelia
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s vascular/ti and endothelial/&b and gwowth(w)factor/ti
Processing
Processing
Processing
         127561 VASCULAR/TI
          37461 ENDOTHELIAL/TI
         446982 GROWTH/TI
         263001 FACTOR/TI
          53821 GROWTH/TI(W)FACTOR/TI
            155 VASCULAR/TI AND ENDOTHELIAL/TI AND GROWTH(W)FACTOR/TI
    S10
display sets
Set
        Items
               Description
S1
        20136
               VASCUL?/AB AND ENDOTHEL?/AB
S2
        1873
               S1 AND GROWTH(W)FACTOR/AB
S3
        1730
               S2 NOT PY=1990
S4
        1663
               SS AND VASCULAR
               S4 AND ENDOTHELIAL/AB
        1563
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122 RD S8 (unique items)

1547

291

198

S5 AND VASCULAR/AB

S7 NOT PY=1989

S6 AND VASCULAR/TI AND ENDOTHEL?/TI